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CANTOR COLBURN, LLP				EXAMINER
20 Church Street				BAHTA, KIDEST
22nd Floor			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/631,873	Applicant(s) KULKARNI ET AL.
	Examiner KIDEST BAHTA	Art Unit 2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 31 December 2007.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-30 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-30 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____

5) Notice of Informal Patent Application
 6) Other: _____

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6, 8, 10-19, 21-24, 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyaji et al. (US 7,2003/2030998) in view of Brotto (US 7,102,303) and in further view of Hodorowski (US 5,530,643).

Regarding claims 1, 15, 26 and 30, Miyaji discloses that an interface for programming a motor control of a motor, comprising: a microcontroller in signal communication with a first signal port and a second signal port, the first signal port adapted for receiving a signal from a computer, the second signal port having a signal terminal adapted for sending a signal to the motor control (Fig. 2); and a solid state relay in signal communication with the microcontroller and the power terminal, the solid state relay having a control element responsive to first and second signals from, respectively, to the motor control (Fig. 3-Fig. 6).

Miyaji fails to disclose a power terminal adapted for sending power to the motor control; the microcontroller for turning on power and for turning off power.

Brotto discloses a power terminal adapted for sending power to the motor control (column 2, lines 51-56); the microcontroller for turning on power and for turning off power (column 3, lines 22-30).

Miyaji and Brotto fail to disclose the microcontroller is adapted for sending a programming signal from the computer to the motor control in response to the programming signal being sent within a defined time following the control element turning on power to the motor control

Hodorowski discloses the microcontroller is adapted for sending a programming signal from the computer to the motor control in response to the programming signal being sent within a defined time following the control element turning on power to the motor control (Fig. 5B, Fig. 5, i.e., timers; Fig. 6, column 6, lines 17-65)

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the teachings of Miyaji with the teachings of Brotto and Hodorowski in order to provide a distributed control system and a distributed control method capable of decreasing a load of a host controller and decreasing a communication load.

Regarding claims 4-6, 10-11, 14, 16-19, 24 and 27, Miyaji discloses,

4. The interface of claim 1, further comprising: a comparator in signal communication with the second signal port and the microcontroller (Fig. 6); wherein an output of the comparator is representative of a cable connection state between the motor control and the motor (Fig. 1); wherein an input value to the comparator is compared against a threshold value (Fig. 2-3); wherein the output of the comparator is representative of the cable connection state being open in response to the threshold

value exceeding the input value ([0063]).

5. The interface of claim 4, further comprising: an impedance network in signal communication with the comparator and the microcontroller; wherein the impedance of the impedance network is responsive to the microcontroller, and the value of the threshold level is responsive to the impedance of the impedance network ([0067]).

6. The interface of claim 5, wherein: the impedance of the impedance network is adjustable by a user via a signal from the computer ([0070]).

10. The interface of claim 1, further comprising: a signal converter in signal communication with the microcontroller and the first signal port for converting a logical 0 signal and a logical 1 signal from an RS232 format to a format recognizable by the microcontroller, and vice versa (Fig. 3, It is inherent that the signal code 0 and 1 has to convert to recognizable format in computer field).

11. The interface of claim 1, further comprising: first and second status lights in signal communication with and responsive to the microcontroller, the first status light representative of the interface being ready to accept commands from the computer, the second status light representative of the interface not being ready to accept commands from the computer ([0052]).

14. The interface of claim 1, further comprising: a reset network in signal communication with the first signal port and the microcontroller, the reset network having a reset control element, the reset control element being responsive to a reset command from the computer, and the microcontroller being responsive to the reset control element ([0058]-[000064]); wherein a reset command signal received at the reset control element from the computer results in a reset signal being received at the microcontroller and a ready signal being generated by the microcontroller, the ready signal indicating that the interface is ready to accept commands from the computer ([0067]).

16. The method of claim 15, further comprising: in response to the programming signal from the computer being received at the interface outside of the defined time following the power being turned on to the motor control, preventing the motor control from entering a test mode and from acting upon the programming signal ([0072]).

17. The method of claim 15, further comprising: receiving at the interface a logical 0 and a logical 1 signal from the computer in RS232 format; converting the logical 0 and logical 1 signals received from the computer from RS232 format to a format recognizable by a microcontroller at the interface; and sending the converted signals to the microcontroller for processing (Fig. 3, It is inherent that the signal code 0 and 1 has to convert to recognizable format in computer field).

18. The method of claim 15, further comprising: sending from the interface a cable test

signal on a signal line to the motor control, and receiving in response thereto a return test signal on a cable check line ([0091]); comparing the value of the return test signal to a comparator threshold value (Fig.3); and in response to the comparator threshold value exceeding the value of the return test signal, providing a cable test failure signal ([0100]).

19. The method of claim 18, further comprising: adjusting the comparator threshold value via the computer ([0070]).

27. The method of claim 26, further comprising: adjusting the comparator threshold value via the computer (Fig. 1).

Regarding claims 3, 22 and 23 Miyaji discloses communicating the programming signal from the computer to the motor control in the absence of an optoelectric isolator ([0042]).

Regarding claims Brotto discloses 8, 12-13, 24,

8. The interface of claim 1, wherein: the microcontroller further comprises erasable and programmable memory for storing firmware used for operating and controlling the motor; wherein the firmware is upgradeable via the computer (Column 5, lines 8-15).

12. The interface of claim 1, wherein: the second signal port consists of eight terminals, wherein six of the eight terminals may function as signal terminals and two of the eight terminals may function as power terminals (column 2, lines 51-67).

13. The interface of claim 1, wherein: the defined time is equal or less than 10 milliseconds (Abstract).

3. Claims 7, 9, 20, 25, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyaji (US 2003/0230998) in view of Brotto (US 7,102,303) and Hodorowski (US 5,530,643) as applied to claims 1, 4-6, 8, 15-19, 26-27 above, and further in view of Olesen et al. (US 2002/0151993).

Regarding claims 1, 4-6, 8, 15-19, 26-27, and 29 Miyaji and Brotto disclose as state above in Par. 2 but Miyaji and Brotto fail to disclose the limitations of claims 7, 9, 20, 25, and 28. However, Olesen discloses the limitations of claims 7, 9, 20, 25, and 28 as follows: the computer is adapted for signal communication with the Internet Fig. 1).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the teaching of Miyaji and Brotto with the teachings of Olesen in order to generating the configuration file on the server means that it is now possible to configure the motor controller directly from the panel of the motor controller via the Internet server provided that the motor controller is connected to the Internet.

4. Claims 2 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyaji (US 2003/0230998) in view of Brotto (US 7,102,303) and view of Hodorowski (US 5,530,643) as applied to claims 1, 3, 15 and 21 above, and further in view of Conoval (US 6,400,903).

Regarding claim 1, 15 and 22, Miyaji and Brotto disclose as state above in Par. 2 but Miyaji and Brotto fail to disclose the limitations of claims 2 and 22. However, Conoval discloses the limitations of claims 2 and 22 as follows: a plurality of signal paths for communicating signals between the first signal port and the second signal port, each signal path adapted for signal communication at a baud rate equal to or greater than 2400 baud (column 13, lines10-25).

It would have been obvious to a person of ordinary skill in the art at the time of invention was made to modify the teaching of Miyaji and Brotto with the teachings of Conoval in order to a general purpose remote image relay method which transparently interconnects a commercial digital camera to a local host viewer independent of specific camera communications protocols.

Response to Arguments

4. Applicant's arguments filed 12/31/07 have been fully considered but they are not persuasive.

Regarding independent claim 1, 15 and 26, Applicant argues the combination of Miyaji, Brotto and Hodorowski fail to disclose the programming signal sent within a defined time following the control element turning on power to the motor control. Examiner disagrees since Hodorowski discloses in column 25, lines 21-43, i.e., Upon the pressing of a LOAD pushbutton 312 for a *predetermined minimum period of time* (within a defined time) a lamp 313 is lighted and the solenoid 310 is actuated to retract the pawl 308 from the interior of the tube 304, allowing the ball 302 to drop down the

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tube 304 from position (b) to position (c), the latter position being further into the tube 304. The ball 302 is stopped at position (c) by a second pawl 314 attached to a solenoid 316. The above described system 300 requires a number of elemental functions: pushbutton switches, lamps, solenoids, a proximity switch, and a filter function that ensures that the LOAD pushbutton has been pressed for a given period of time (turning the power on and off at a defined time).

In addition, applicant argues that sending, receiving and comparison test signal or transmission of cable test failure signal. Examiner disagrees since Hodorowski discloses in column 14, lines 54-60; column 20, lines 55-65 and column 22, lines 40-column 23, line 62, i.e., The mandatory report message allows status of every part of every control module 12 on a given path from the power return rail 80 to the power source rail 74 to be established thus updating the state of the system and confirming that the parts of all of the control modules 12 are connected. This status may be confirmed and displayed via the attached programming terminal 20. This technique will validate that all serial, parallel and feedback paths are intact and executing. Thus, decision and process blocks 236 through 241 provides a method of protecting against failures of a given control module 12 or a break in their virtual connections. Importantly, however, a failure of a given control module 12 or part within that module may be easily isolated by this procedure. In contrast, generally a failure of a component of a centralized controller prevents such easy troubleshooting. Further, as mentioned, the only modules requiring "watchdog functionality" and fault action behaviors are output and actuators, not all network devices.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed Kidest Bahta whose telephone number is 571-272-3737. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application information Retrieval IPAIRI system. Status information for published applications may be obtained from either Private PMR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

have questions on access to the Private PAG system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kidest Bahta/

Primary Examiner, Art Unit 2123